

REMARKS

This amendment responds to the office action mailed November 22, 2004. In the office action the Examiner:

- objected to claim 12 for containing informalities;
- rejected claims 8 and 15 under 35 U.S.C. 102(e) as anticipated by Guerra-Vela, et al. (US 2002/0152795 A1); and
- objected to claims 9-14, 16 and 18-24 as being dependant on rejected base claim.

After entry of this amendment, the pending claims are: claims 8-16 and 18-24.

Applicants have canceled previously withdrawn claims 1-7.

In paragraph 2 of the office action, claim 12 was objected to because it contained a spelling error. Applicant has amended claim 12 to correct the spelling error.

In paragraph 4 of the office action, claims 8 and 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Guerra-Vela *et al.* Applicant has amended claims 8, 13, 18 and 15. Claims 13 and 18 were amended to provide proper antecedent basis.

Guerra-Vela discloses a method of determining the effective length and spring constant of a cantilever using detected resonant frequencies. *See*, page 5, paragraph 65. The resonant frequencies of a cantilever 500 are detected by exciting a piezoelectric crystal 508 positioned near the base of the cantilever 500 using a signal generator 510 by sweeping through a range of audio frequencies. *See*, page 4, paragraphs 58-62, and Figure 5. An oscilloscope 518 is used to plot the signal generator output against a signal from a second piezoelectric crystal 514 attached to the free end of the cantilever 500. *Id.* Resonance frequencies that are propagated from the piezoelectric crystal 508 to the piezoelectric crystal 514 generate a Lissajous figure 520 on the display of the oscilloscope 518. *Id.*

Guerra-Vela fails to disclose or suggest “determining a power spectrum of the cantilever,” as claimed. Nor does he disclose or suggest “determining one or more characteristics of the cantilever based on the motion of the base, the power spectrum, and the cantilever deflection,” as claimed. The failure of Guerra-Vela to show each and every element of claim 8 vitiates any basis for rejection of claim 8 under 35 U.S.C. 102(e). Applicant respectfully requests withdrawal of the rejection of claim 8 and allowance of claim 8, as amended.

Claims 9-14 and 24 depend from claim 8 and include all the limitations of claim 8. Therefore, claims 9-14 and 24 are allowable for at least the same reasons as claim 8 and for

the independent subject matter recited therein. Applicant respectfully requests withdrawal of the rejection of claims 9-14 and 24 and allowance of claims 9-14 and 24, as amended.

Claim 15 includes the limitations of claim 8 in means-plus-function format. Therefore, claim 15 is allowable for at least the same reasons as claim 8. Applicant respectfully requests withdrawal of the rejection of claim 15 and allowance of claim 15, as amended.

Claims 16, 18-23 depend from claim 15 and include all the limitations of claim 15. Therefore, claims 16, 18-23 are allowable for at least the same reasons as claim 15 and for the independent subject matter recited therein. Applicant respectfully requests withdrawal of the rejection of claims 16, 18-23 and allowance of claims 16, 18-23, as amended.

In light of the above amendments and remarks, Applicant respectfully requests that the Examiner reconsider this application with a view towards allowance. The Examiner is invited to call the undersigned attorney at (650) 843-7527, if a telephone call could help resolve any remaining items.

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Respectfully submitted,


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